

## SYSTEM AND METHOD FOR ABATING THE SIMULTANEOUS FLOW OF SILANE AND ARSINE

### Abstract

5 A system and method for abating a simultaneous flow of silane and arsine contained in an  
exhaust gas of DRAM processing chamber (12). The system includes a CVD abatement  
apparatus (20) and a resin-type adsorber (22). The CVD abatement apparatus comprises  
an enclosure (24) that defines a chamber (26) for receiving the exhaust gas. The  
enclosure contains a plurality of removable substrates (32) arranged as a series of baffles  
inside the enclosure. As the exhaust gas flows through the CVD abatement apparatus, the  
10 silicon within the silane is deposited as a film upon the substrates by chemical vapor  
deposition. The arsine continues to flow through the CVD apparatus to the adsorber  
where it is adsorbed by the resin contained therein. After the film has reached a particular  
thickness, the substrates can be removed from the enclosure, cleaned of the film and  
returned to the enclosure for further use.

BTV/Patent Application.wpd